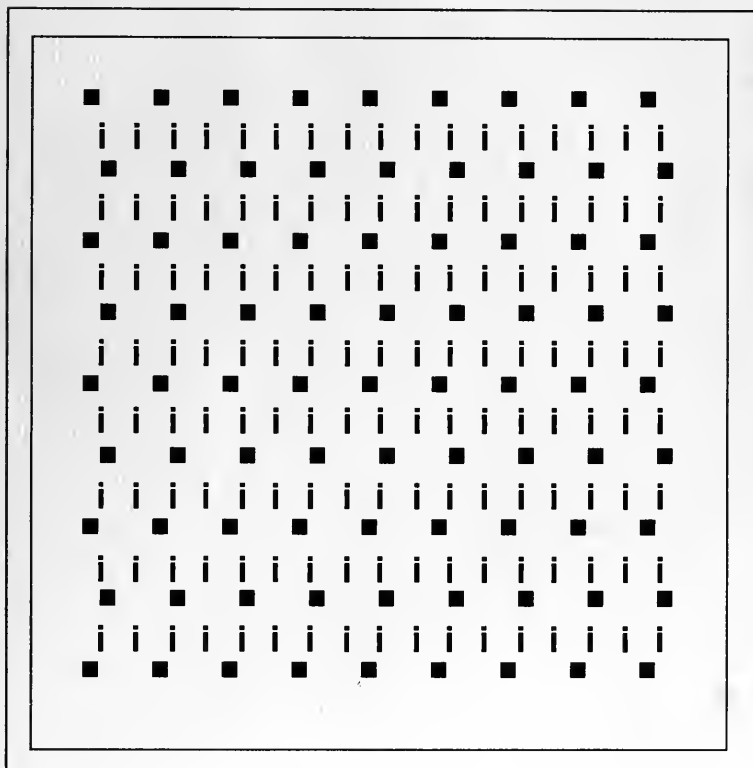


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INTERNATIONAL ASSOCIATION
FOR SOCIAL SCIENCE
INFORMATION SERVICE AND
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The Use and Value of Social Science Data for Government and Public Administration

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It is a particular honour and privilege for me to speak to an audience of international experts on the occasion of this meeting on the "Value of Research Data for Government and Business". My paper is not to be interpreted as an invitation to create new theories on the social benefits of science nor is it a study based on a variety of empiric material and interviews. It is rather a kind of qualitative case study relating your scientific work to practical problems. It also represents my personal view of the problems on hand.

A proper picture of the use and value of social science data for government and administration can be painted only if the use of social research results for politics as a whole is considered. In the Federal Republic of Germany there has been a long tradition of debating that subject in detail, a debate which is still going on. Numerous political statements have been made to the effect that political advisors and decision-makers need social science research results, above all scientific evidence in the form of facts and figures. I am quoting three examples of such statements made by different political groups at different times:

"If it has been possible to start relevant research work earlier, some of the labour market problems confronting us today might have been tackled in a better way. At that time it might

¹Presented at the IFDO/IASSIST 89 Conference held in Jerusalem, Israel, May 15-18, 1989

have been possible to take early measures to alleviate labour market problems. Today the problems are pressing and we sometimes have to take measures which seem appropriate at the time." (From a 1967 statement by the Free Democratic Party on labour market research)

"A foresighted policy must be based on sufficiently meaningful advance information such as the medium and long-term labour market estimates and projections of labour statistics. We must support in particular the adjustment of the labour market to industrial and technological developments through labour market and occupational research." (From a 1969 statement of the Social Democratic Party)

"Above all I expect the social sciences to help us imagine future developments and, instead of merely issuing increasingly resigned warnings against the risks of technology, finally to attempt to identify the opportunities for shaping the social and economic structures of our technology-based society. I hope that social scientists will use their imagination and take up the burning issues of today, thus maybe abandoning their common self-centred approach." (Federal Research Minister Dr. Heinz Riesenhuber at the Berlin Science Centre for Social Research on November 15, 1982)

These three quotations reflect the prevailing expectations concerning the contribution of the social sciences to politics and the value of their results for government and administration. The social sciences are expected to make proposals for the organization of social and economic structures and to provide data for the perception, analysis and understanding of an increasingly complex social and economic reality. In a lecture held in Bonn in October 1987, Professor Kurt Biedenkopf, who has been involved in political practice for decades, described the contribution of social science as follows:

"Policy-makers, like those who are concerned with the rational design of a component of society such as industrial enterprises, need scientific advice. A political approach can only be rational if the assumptions on which political action is based correspond to the real-life situation. Political experience gained from previous action is not enough to guarantee such correspondence. Society is constantly changing due to the application of the rapidly growing scientific and technological knowledge, the ever increasing prosperity, the rapid development of man's options for life in our industrial world and due to the change of orientation and priorities regarded as a change of values. Therefore the experience gained with former realities is no longer valid.

Politics is supposed to adjust social institutions, standards and conditions to the changed reality. This requires a reliable analysis of the changes that have occurred. Political reproduction of former realities entails a waste of resources and a loss of authority and legitimation just as much as action based on improper assumptions about present realities. A rational policy, i.e. action which pursues a particular goal and relates to reality, must exploit all opportunities to perceive reality and identify its prevailing patterns. This implies that it must be open to a critical evaluation of methods, to an objective, unbiased, i.e. scientific counselling. Such counselling is a prerequisite for rational policy-making."

The extent to which social science counselling has been used and valued in the Federal Republic of Germany has varied during the past few decades.

After the collapse of the Third Reich in 1945 and during the development of a democratic structure for the Federal Republic of Germany from 1949 onwards, social science developed simultaneously

with the Economic Miracle up to 1960, without hardly any relations evolving between the two. The rediscovered opportunities of empiric social science research for commercial market and public opinion surveys on the one hand and for scientific and political purposes on the other hand were seized and unbiased use was made of research results, in particular quantitative social research. Everyone was happy about the newly created or rediscovered instruments of opinion-polling and scientific statistics, the results of which were in most cases used in daily work without any further consideration, and put to the records as rapidly as they had been produced. This is the reason why a large part of the documented results of empiric social research of these early years do no longer exist today or are virtually not available: Comparative or secondary analyses, longitudinal studies or panels gained acceptance only very slowly.

In the now almost legendary 1960s a dramatic change occurred. Not only was a scientific debate prompted by the Frankfurt School, which at times took the form of a social movement between 1968 and 1970, but also a new general understanding of the significance of empiric social research emerged. This phase is characterized by the importance of social science as an instrument for analysis and soon also for planning and control. A rapidly changing society which was increasingly influenced by science and technology attempted to analyse and understand itself as well as to make plans for the future and avoid major risks by using social science research. As a result, too much was expected of social science, which, compared with numerous other scientific social science, was still a young discipline. From the mid-1970s onwards a realistic, matter-of-fact view of the possibilities of social science was gaining ground, and this view still prevails today. The words of Kurt Biedenkopf which I have quoted reflect these realistic expectations vis-à-vis social science, which is an indispensable instrument for counselling and which can provide the knowledge and criteria necessary for a proper evaluation of an increasingly complex reality but which is not able to furnish solutions to existing problems.

It should also be mentioned that the dramatic revival in social science in the Federal Republic of Germany in the 1960s not only prompted a dynamic growth of this academic discipline but also led to the establishment of numerous institutions which are the keystone of today's social science infrastructure in our country. I am referring to the foundation of the central archives for empiric social research (Zentralarchiv für Empirische Sozialforschung) in Cologne under Professor Erwin Scheuch in 1960, the establishment of the Berlin Science Centre for Social Research (Wissenschaftszentrum Berlin für Sozialforschung) in 1969 – which was initiated by members of the German Bundestag and backed by all parliamentary parties of that time – the foundation of the Centre for Polling, Methods and Analyses (Zentrum für Umfragen, Methoden und Analysen) in Mannheim initiated by Professor Rudolf Wildenmann as well as the foundation of the Social Science Information Centre (Informationszentrum Sozialwissenschaften) in Bonn initiated by the Federal Research Ministry in the 1970s. I am also referring to the considerations and concepts concerning the socio-economic panel in the Federal Republic of Germany which has been working for about ten years now. These institutions cooperate with the numerous sociological institutes at German universities with the aim of developing social science in the Federal Republic of Germany. Together with the well-known economic research institutes and a number of political science institutions – German Peace and Conflict Research was also given its organizational framework in 1970 – they are partners for policy-makers and administrators.

Policy-makers and administrators increasingly appreciate the availability of social science data which have been yielded by comparison of national studies or by international surveys. For that purpose,

numerous institutions in Europe have been cooperating for quite some years now within Eurobarometer, while at the international level there is cooperation within the International Social Survey Project Program (ISSP). I believe that the creation of the society of social science infrastructure institutions (GESIS, Gesellschaft Sozialwissenschaftlicher Infrastruktureinrichtungen) in the Federal Republic of Germany in 1987 has provided additional opportunities for international empiric social research cooperation, for data exchange, surveys under joint programmes and comparison with national data. I can assure you that the Federal Ministry for Research and Technology will support relevant efforts both nationally and internationally within e.g. the European Communities or OECD. Undoubtedly, this Conference is an excellent opportunity to discuss and agree on the subjects, methods and organizational forms of such an intensified cooperation.

After having reviewed these four decades of social science research and its use in the Federal Republic of Germany, we may on the whole agree with Ansgar Weymann and Matthias Wiggins, who make the following statement in their recent study on the use of sociological knowledge in education debate (Bremen 1988):

"In today's society, political decisions and measures must be carefully considered, prepared and legitimized during a public debate. This debate on the objectives, values, instruments, strategies, costs, etc., of political action includes the use of social science knowledge as a major aspect: social science data help identify the major social problems as well as social factors and causes."

Similarly, C. Weiβ states the following in his introduction to the anthology "Using social science research in public policy making" (Lexington Heath, 1977).

"Thus social research may sensitize decision-makers to new issues and turn what were non-problems into policy problems... In turn, it may convert existing social problems into non-problems (e.g. marijuana use). It may drastically revise the way a society thinks about issues (e.g. acceptable rates of unemployment), the facets of the issue that are viewed as susceptible to alteration, and the alternative measures it considers. Global reorientation of this sort is not likely to be the outcome of a single study on even one specific line of enquiry. But over time and with that accumulation of evidence, such use have far-reaching implications."

Of course, all these general statements hold also true for the use of social science data in public policy and administration. I should, however, like to quote three examples illustrating the problems which occur today - maybe more clearly than in past decades - when social research data are used by policy-makers and administrators. I should also like to present the current debate on these problems from an administrator's point of view.

Public opinion research in the form of election polls now use very sophisticated methods and is a major topic of public debate in all western democracies. Many, half joking half desperate, are already speaking of the transition from democracy to "pollsterocracy": the pollsters take over power in a representative democracy or are trying out elements of such a take-over through the interplay of public opinion polls and the media. Undoubtedly, at least in the Federal Republic of Germany, public opinion polls yield significant results concerning the current views on the election prospects of the political parties represented in the Federal Länder parliaments and concerning the popularity of individual politicians. This is why such opinion polls may have an influence on existing coalitions and on the fate of individual politicians. Moreover, public opinion polls reflect the changing

priorities of public debate and thus, again together with modern mass communication, foster a permanent election-campaign atmosphere in many of our western societies. It is obvious that such influences do not create a favourable environment for the fulfillment of administrators' long-term tasks nor does it enhance an objective assessment of future development. Serious proposals have been made for interrupting public opinion polling for a certain number of weeks or months e.g. before major elections. It is quite understandable that these proposals provoked protest from the social scientists concerned as well as from the media and the public, who enjoy playing with the sometimes rapidly changing figures on the evaluation of political parties, personalities and subjects.

Informal arrangements have meanwhile been made to the effect that publication of the results of public opinion polls be stopped about one week before major elections, although the studies will continue up to the election day. In some countries it has become common practice to interview voters leaving the polling station and ask them for whom they have voted in order to obtain more exact data on the changes in voting behaviour of specific sections of the population. I personally consider this practice rather problematic, because it verges on violating the principle of secret ballot. As public opinion research on political attitudes and election behaviour should and must maintain its importance as a factor supporting change in a living democracy, we in this circle of international experts should consider seriously which developments can be identified early on and may thus be rejected.

Let me now quote a second example. We all know how important economic research is for the modern social welfare state, which aims to achieve full employment, economic growth and monetary stability. In the past decades researchers worked hard to establish a perfect data system for national economies. Theoretical economics and the empiric economic sciences developed an impressive set of indicators, which seemed to make possible accounting at the national, regional and international level. The percentage growth of the gross national product – monthly, annually or over many years – seemed to provide an objective yardstick for measuring the development of prosperity, full employment and monetary stability. It was widely believed that the economic sciences had thus been admitted to the select circle of the exact empiric sciences and a sound basis created for economic decisions to be taken by policy-makers and administrators. Each per cent up or down the scale of gross national product development usually not only prompted a new wave of public debate on economic policy but in most cases also predetermined economic policy to a considerable extent.

In the meantime, researchers and policy-makers have had to realize that this supposedly elaborate data system was incomplete at several crucial points and was thus misleading. It turned out that major social indicators such as the distribution of income and property among the population of a national economy or the development of the health and pension systems had not been taken into account when considering GNP growth. This means that considerable economic and social problems may arise without the data system reflecting them. Furthermore, healthy air, clean water and unpolluted soil were included as zero values in national accounts – a false decision whose revision requires considerable efforts and funds worldwide. Finally accounting has so far also ignored the safety and durability of goods by only considering their new acquisition. Every car accident means an increase of the gross national product as a result of the injury to persons and damage to property it causes, whereas safe driving and long-lived vehicles are not taken into account. Every large fire and every tanker accident means a marked increase of the gross national product, while safe ships and the prevention of industrial accidents are not included in national accounting. And finally it has been generally realized that the work performed in private households is not taken into account when

the gross national product is calculated. Today efforts are being made worldwide to develop new national accounting systems which also include some of these social and environmental indicators. Nevertheless, we have to ask ourselves – precisely when considering this example – whether it is not a mistake of economic and science theory to expect that complex social or economic processes can be identified and described by a data system. The question arises whether processes such as technological and social change or population and family structure developments throughout the world could not be better described by identifying changed attitudes and philosophies as the causes of such developments.

My third and final example is taken from my own field of work. For more than thirty years now there has been an intensive public opinion research concerning the acceptance of technology in the Federal Republic of Germany. Researchers like Professor Elisabeth Noell-Neumann and Professor Erwin Scheuch started relevant activities at a time when technological development was not yet a subject of public interest in the Federal Republic of Germany. At the beginning of the 1980s researchers found – to the public's surprise – that public opinion vis-à-vis technology had apparently changed completely in less than 20 years. Asked whether they considered technology rather a blessing or a curse, a question which the Allensbach Institute for Public Opinion Research posed every year, 72% of the population answered "rather a blessing" in 1966, while in 1984 this percentage had gone down to 32%. Technology was considered a curse by 8% in 1966 and by 11% in 1984. In 1966 17% answered that technology was partly a blessing and partly a curse, in 1984 this percentage was 54%. Within less than twenty years the majority of answers had changed from positive to ambivalent. This result, together with answers to similar questions and the results of technology acceptance studies in other industrialized nations, initiated a lively debate in the 1980s, which involved not only German social research but also the public media. This debate culminated in blaming a particular "hostility toward technology" on the German people and led to various profound considerations about the German nature as such and its lacking sense of reality.

In the past few years, studies have been conducted with support granted by the Federal Ministry for Research and Technology from which two conclusions can be drawn:

1. What has obviously changed is not the basic attitude towards science and technology – there are still high public expectations as numerous studies have shown. What has changed is the meaning of "blessing" and "curse" when related to technology: The majority of the German population has realized that technological development and progress cannot be qualified by such metaphysical terms. What is essential is the use to which technology is put. Qualifying technological development as partly a blessing and partly a curse is therefore the only possibility to deal with this question rationally. Therefore the change in percentages is not a sign of hostility towards technology but shows a profound understanding of the risks involved in technological development and the opportunities it presents, which must be perceived and used in a responsible manner.
2. Past efforts have shown that it is possible to compare polling data on technology acceptance in various countries, which is not self-evident in view of the semantic and interpretative problem I have just mentioned. These comparisons have, however, also shown that the process of accepting the use of technology is tied to cultural development in all industrialized societies including e.g. Japan and southern European. This cultural development is increasingly characterized by the view that technology is an option of society. Only if this cultural framework is taken into account – as repeatedly emphasized above all by Professor Scheuch – can polling data be properly interpreted

and yield useful results.

Let me conclude my report by summarizing my remarks. In the Federal Republic of Germany today, policy-makers and administrators make extensive use of social science data which have been gained by economic research, election and public opinion surveys, panel studies and by means of social indicators. Empiric social and economic research are highly valued instruments used by policy-makers and administrators when making decisions. The importance in particular of data yielded by public opinion polls is rather exaggerated than underestimated. The disillusionment which, since the beginning of the 1980s, has been replacing the former euphoria about the planning and control functions of social science research results did not limit the manifold uses of such data. I have the impression that their use has even increased due to the empiric character of these data. Gaps in the infrastructure for social science data collection and processing or methodological surveying have been closed in the past few years, partly through government action.

Today, policy-makers and administrators feel an increasing demand for a theoretical framework for understanding and making proper use of an increasing flood of well-founded social science data. Just as the natural sciences must constantly guard against the reduction of empiric research to mechanist explanations, it should not be the ambition of the empiric social sciences to adopt the mechanistic philosophy in a belated effort. The examples which I have presented to you illustrated this risk.

Socially relevant figures and facts, even when collected over a longer period of time, only represent individual structural elements and do not explain the causes nor do they identify the forces of social change. They may draw attention to the wrong priorities or lead to considerable misallocations of government resources, if they are considered or interpreted separately or gain a dynamic of their own - a danger which is always imminent when complex events are represented by apparently objective figures. In particular the experts involved in social science surveys and the interpretation of relevant data must be told over and over again that figures and data are not a substitute for reality and its evaluation but are symbols for elements of real life. If, in the future, social science data are to be efficiently used by policy-makers and administrators, the cultural and theoretical interpretation of data must keep pace with data production or even precede relevant surveys.□

Sharing Information Begets Information

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Abstract

In common with many other national data libraries, the British Data Archive has a developed role as a broker of government and commercial data to the academic community. For the Data Archive, at least, it would not be excessive to claim that its *raison d'être* lies in its fulfillment of this role.

Overcoming the technical and legal constraints on data accessibility revealed a knottier problem. Data archives' success in making vast volume of diverse data physically available to a heterogeneous research community heightened the need for knowledge about the data. Although recent developments in computer networking and software ease *data sharing*, they may inhibit *knowledge sharing*.

This paper describes several innovative programmes undertaken over the years to facilitate the exchange of data-orientated knowledge between (and among) depositors and analysts. Three are described: data-focused workshops, user groups and computer teleconferencing. Each approach has

¹Presented at the IFDO/IASSIST 89 Conference held in Jerusalem, Israel, May 15-18, 1989

evolved through time, often based on the reaction of programme participants. The paper highlights noteworthy stages of the several iterative processes which led to the nourishment of new information-sharing networks.

Introduction

Throughout their history, social science data archives concentrated on a direct, unambiguous goal. They retained computerised information (data) files for distribution to secondary analysts. While archivists will not shrink from describing the difficulties still entailed in this aim, their success minimised general awareness of their efforts. Moreover, as I have suggested elsewhere¹, this task was necessary at a particular technological moment. Developments in information techniques² diminish the centrality of the traditional archive task. Put simply, archives have to reassess their role in a changing world.

Archives, like any other producer, can explore the characteristics of their market to be sure that they target their "product line" to market needs. The paper adopts a standard market analysis strategy to show that the British national archive's client community contains several segments. It finds that within the British user community there is a sizeable group of researchers who analyse large data suites. The paper then specifies the particular needs of this large cluster. They, more than others, require shared knowledge about the material they use. While informal networks are the best medium for exchange, existing professional networks cannot fill this function effectively. Here then, the paper suggests, is a market niche that archives are well-suited to fill.

Moreover, and at the risk of forcing the commercial analogy, this section of the paper also shows that in creating this marketable product, the archive is adopting the concerns of the currently popular ethical investment funds. Information-sharing networks are valuable not just because they bolster an archive's "profitability". They also offer an otherwise unavailable public good.

The second part of the paper describes three related projects undertaken by the Data Archive to foster data-centred networks. Each is described at some length to guide other archives who might be contemplating similar network-building activities.

¹Tanenbaum, E. (1986) "Archive and Dinosaurs" *IASSIST Quarterly*

²e.g. local mass storage devices, inter-computer networking, database systems with common user interfaces

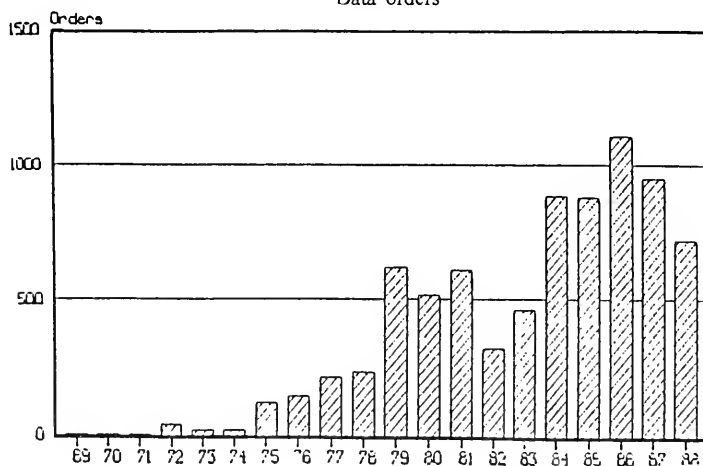
Section 1: Identifying the Market(s)

Success Has Its Perils

There is evidence that archives successfully meet their goal of recycling data to the research community. On the supply side, even in a period of economic restrictions, data archives continue to be funded with central funding. Moreover a growing number of multi-volume archive data catalogues suggests that data originators find depositing data to be both worthwhile and safe. On the demand side, less impressionistic (if more parochial) evidence can be drawn from one archive's experience to suggest that archives have also found acceptance among social scientists.

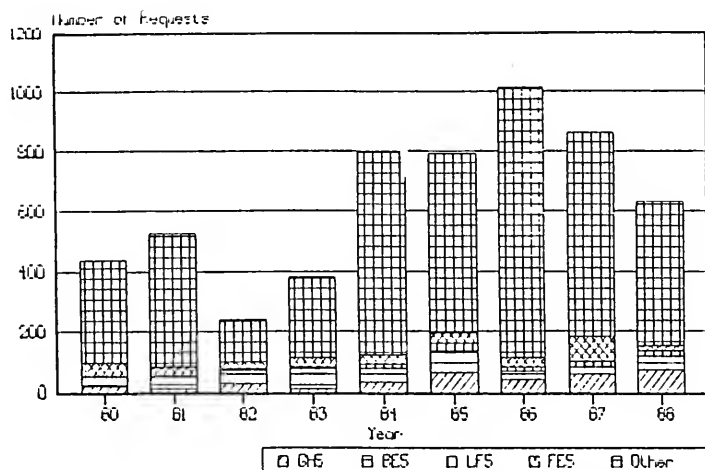
Figure 1 charts the development of British (Economic and Social Research Council) Data Archive academic user community since it "went public" in 1969. Of the several factors which contribute to the growth pattern⁴, the increased range of rich data sets that have become available through the years stands out. Figure 2 demonstrates that a good portion of the growth comes from only a few datasets. To put the figure in perspective it is worth noting that the four series combined represent less than 3% of the Data Archive's data holdings. Thus while Archive users still address a varied body of data, some files are disproportionately popular. This has several implications for the Archive, the user community and, not least, this paper.

figure 1
Data orders



⁴e.g. growth in (a) social science community, (b) acceptance of empirical research, (c) access to computers, and (d) quantitative skills.

figure 2
Data orders for four series



At first glance the most remarkable feature of these data sets is the breadth of their substantive coverage. Each title referenced in Figure 1 is the generic name of a multi-member set. Table 1 describes the broad features of each set by time coverage (occasions), stimuli (variables, tests) and sample (population, people), the three facets of the data box described by Cattell⁵.

Table 1 flags the potential technical and strategic problem areas that anyone analysing these data will face. These are:

COMPUTING: The sheer amount of data faced by the user of one of these data sets will almost certainly exceed anything in the analyst's experience. Success with these data will require familiarity with aspects of computer use which could happily be ignored when analysing smaller data sets (of the kind most researchers learn to use during their training)⁶.

⁵R.B. Cattell (1978) The Scientific Use of Factor Analysis in Behavioral and Life Sciences (London: Plenum Press).

⁶For example, my first analysis encounter with the Family Expenditure Survey used a ten year slice

STATISTICAL: These studies rarely use simple random sampling. The elementary approaches to sampling error to which many social scientists cling tenaciously for decision rules may mislead. Equally troublesome, analysts quickly find that most coefficients are "statistically significant" with samples as large as those available from these files.

DESIGN: Each set supports cross-time trend analyses. Moreover, two have panel study characteristics and several have irregular time intervals. Exploiting the time dimension will often require learning new analytical strategies of the kind not normally covered in a social science curriculum.

DEFINITION: Although not unrelated to the design consideration just described, choosing the most appropriate operational definition is a sufficiently large stumbling block to justify separate mention. Three potential problems stand out.

First, the individual studies present many choices. Recurrent government studies⁷ which serve several purposes (and sponsors) have multiple definitions of similar phenomena. For example, the Family Expenditure Survey offers its analysts at least a half dozen ways of measuring income. The would-be secondary analyst knows there must be a reason (or reasons) for the different approaches but may not be clear about their relative merits.

Second, definitions may change across years. The analyst has to decide whether the different question wordings are functionally equivalent⁸ or are truly different measures.

Third, and although trivial it can be disastrous, the physical location of the same question/variable may change across years. In the uncommon situation faced by researchers using these data sets, a certain numbness sets in when writing the eighth format statement to extract the "same" data⁹. This is less likely a problem for the researcher analysing data from a single cross-section study.

STRUCTURAL: Although perhaps not immediately clear from Table 1, most of the studies referenced do not use the familiar simple data structures that most cross-sectional studies employ. Many researchers lack the software tools to unbundle complex data relations like those of the General Household Study. There, as the name implies, the household is the basic observational unit. However data appear separately for all individuals in the household. Moreover there can be variable amounts of information appearing for the separate individuals in a single house. Granted, the British Data Archive produces simplified data structures from

⁷(cont'd) which meant a dataset with 250,000 observations. Although I had grown to love asterisks in psychology research reports, I was less enthusiastic when my standard computer package insisted in producing rows of asterisks in all the output I generated. The mass of data threw it into overflow fits as it tried to calculate simple variances across a quarter million observations.

⁸i.e. General Household Survey, Labour Force Survey, National Food Survey and Family Expenditure Survey.

⁹For example, the researcher interested in authoritarianism may feel foolish asking respondents to evaluate "zoot-suiters" but might still want to tap ethnocentrism with a more contemporary, but subjectively-equalivanet, stimulus.

¹⁰It may also be that many analysts of multi-year data sets are risk-takers. It is surprising how many request several years' data from a survey set based on reading the documentation for a single year.

these files. However an understanding of the particular logical view of the inter-entity relations that the Archive takes in making these simplifications is desirable, or perhaps essential, to understanding the data themselves. The user of data from simpler sources can more easily ignore this difficulty because no choice is offered.

TABLE 1

Basic Characteristics of Four Series

STUDY SET	TIME PERIOD	STIMULI	SAMPLE SIZE
General Household Survey	1971- (annual)	housing/ employment/ education/ health/ leisure/ household structure/ income	11,000+ households (30,000+ individuals)
Family Expenditure Study	1961- (annual)	income/ expenditure/ household structure	11,000+ households (30,000+ individuals)
Labour Force Survey	1973- (biennial/ annual)	household composition/ economic activity	100,000 individuals annual) (panel component)
British Election Studies	1963- (election years)	demographic/ economic activity/ social attitudes/	2000+ individuals (panel component) voting

While the difficulties clustered in these five areas may plague any secondary analyst, they are particularly pernicious for the analyst of complex suites of data, such as those described in Table 1. The analyst who uses a single data file collected for a particular purpose may avoid the pitfalls charted in the preceding paragraphs unwittingly. These data files are smaller, temporarily-specific and substantively-focused at origin. With these data sets the analyst's tried and proven skills will be appropriate. The user of material from these larger series will be much more prone to error at every stage of the research project.

Whither the Archives?

This suggests several alternative strategies for data archives in their dual roles as purveyors of data and promoters of good social research. If they adopted a truly defensive posture, archives could dissuade researchers from undertaking the analyses of material derived from these complicated sources. However a little reflection will show that this is neither possible nor safe because of the requirements of data-based empirical research. An empirical social science *which says anything worthwhile about social phenomena, requires rich data resources. Social reality is not simple.* There is no reason to suspect that it can be modeled with simple data.

If this defensive posture is not viable, neither is a *laissez-faire* attitude which allows the analysts to swim through the shoals if they can. The chances are too great that more would sink than survive. Moreover the analyst would not sink alone. Archives and social science would be trapped in a quagmire of bad social research. There are few countries in which the social sciences are strong enough to risk producing bad research. More parochially, there are probably even fewer publicly-funded archives which could survive in the face of being implicated in a long sequence of poor research projects.

Archives have to take a pro-active role to improve the secondary analyses of complex datasets. Besides providing well-documented data, they must begin to offer an effective "after sales" service. In the academic world this means working to foster, and then maintain, professional networks.

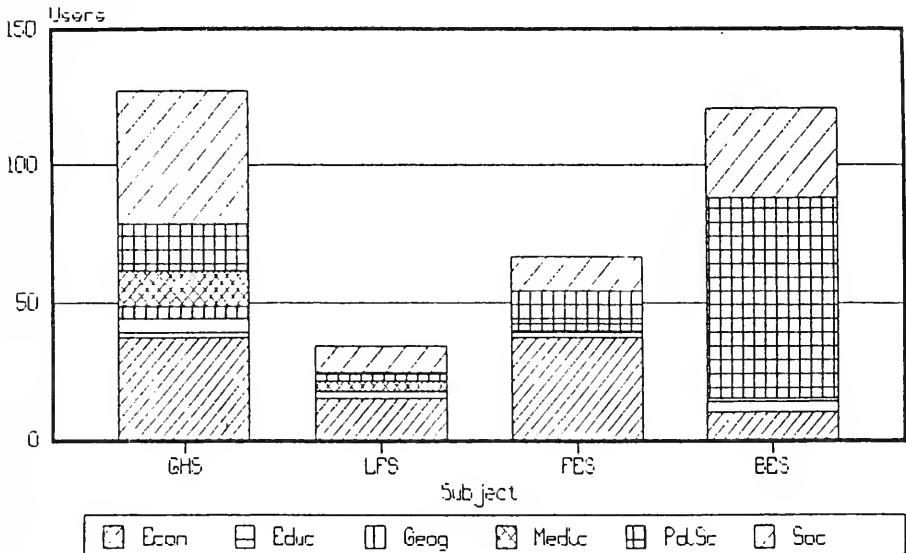
There is nothing novel in suggesting that networks are central features in the social researchers gambit. One has only to look at the activities of the many professional associations in the social sciences for evidence of their role. However while discipline-based networks are a model for this paper's proposal, they do not provide the vehicle. Figure 3 suggests why.

Again, this chart reports the Data Archive's experience. The users of the four data suites are described by discipline¹⁰. As might be expected from these datasets' diverse topic coverage, the graph shows that they attract a heterogeneous group of analysts. As they are "united" by a common resource rather than a common professional orientation, existing disciplinary networks will not provide an effective milieu for sharing experiences¹¹. At the very least, archives themselves have to provide the catalyst for network creation. More likely, they will also have to provide continuing executive support.

¹⁰Because disciplines are identified by the user's departmental address, this is at best a rough approximation of what researcher affiliations are. For example, political scientists are defined as those users whose departmental address contained one of the following character strings: POL, INTER (for international relations), PEACE (peace studies), GOV (government) or PUB (public administration).

¹¹Even application fields, which often transcend disciplinary boundaries, offer an inadequate spread of contacts. Appendix A lists a set of research projects undertaken in one year with one of these data series. It can be seen that the applications are almost as diverse as the researchers' professional orientations.

figure 3
Data users fo four series within discipline 1963 - 1988



Section 2: Fostering Data-Centred Networks

Three Ventures

The Data Archive has approached network creation in three ways: (a) data based workshops, (b) user groups and (c) computer teleconferencing. Each has been successful enough to justify its continuation. Nonetheless, they are resource intensive, albeit in different ways. Thus it is worth giving an account of their individual development, and the problems met, to guide other archives who might be considering similar activities.

Data Workshops

The data-based workshop series was the Archive's first formal attempt to encourage the interchange of knowledge. It has two targets. It tries to promote exchanges both among secondary analysts of particular data series and between the data series originators and potential secondary analysts.

The first workshop, which featured the Family Expenditure Survey, was held in 1976. Although the format of the workshops has changed through time¹², the basic principles remain unaltered.

Most important of these is the belief that *resource-centred* meetings are unique and necessary. As suggested earlier, social researchers have many opportunities to engage in substantive interchanges with their colleagues. Without these data-centred workshops they would have little chance to meet others using the same resource and so would have little opportunity to share problems and solutions. As many of these are technical, they are unrelated to substantive concerns.

The necessity of a forum for sharing fostered the second stable organisational principle. Informality rules. Unlike most academic workshops, Data Archive data workshops encourage audience participation. Through the years we used several ploys to help stimulate this ambience.

We use only a skeletal agenda — an example of one appears in Appendix B. Generally there are no more than four speakers. Each *introduces* a well-defined topic. Typically these topics are "the originator's perspective: data substance," "the originator's perspective: field work procedures," and, where possible, descriptions from two secondary analysts about their experience with the data. The invitation to speakers is careful to warn against a conventional paper. Experience, rather than findings, is what is required.

Although each segment is given at least an hour, speakers are urged to limit their prepared comments to 20–25 minutes. They are also asked to steel themselves against long, but we hope pregnant, silences as members of the audience wait for someone else to speak.

We adopted this approach because it is virtually impossible to predict what aspects of a dataset are not properly covered by its accompanying documentation. The important bits of knowledge are those identified by the users as being crucial. Creating a forum in which users can express and resolve concerns helps remove the "minor" stumbling blocks that inhibit analyses.

User interchanges are also encouraged. Because the Archive's main funding agency recognised that these workshops offered a valuable, but otherwise unavailable, service to social researchers they could be run free of charge¹³. A completed pre-registration questionnaire which asks about the participant's interest in and experience of the featured data set is the only admission price.

These questionnaires, which serve as confirmations of intention to attend¹⁴, are collated before the

¹²Although it would be nice to think that the Archive is iterating toward the perfect solution for knowledge interchange one frequently suspects that we are simply fixed in a local minima.

¹³Indeed in the beginning it was also possible to offer travel support to all attenders; this is now only available to people on Research Council studentships.

¹⁴the venues are only announced to those who return them

meeting. Each participant gets a copy so that people with similar interests can locate one another during scheduled breaks. The collations also help the invited speakers direct their remarks to the audience's needs.

In general, the content of audience interventions meets our expectations. Questions about variable definition and sampling strategy stand out among the many topics that have arisen over the years. Furthermore, our follow-up questionnaires indicate that just meeting the originators of a data resource is reassuring. For many, this exceeds the value of responses to particular points. If nothing else, it helps defeat the gap between data collection and data analysis that is one of secondary analyses weaknesses.

When the series began, we expected that we would hold three a year. Each would correspond to a British academic term. We also intended to limit workshop coverage to the larger data sets (e.g. General Household Survey, Naitonal Child Development Survey, Family Expenditure Survey) so that they could be recycled biennially. The list of workshops held in the last few years, which appears in Talbe 2, shows that this aim failed.

Table 2 also has information about the number of people attending the workshops. Attendance varies widely, although a ceiling is set at fifty. Occasionally we schedule a rapid repeat meeting to serve an overflow.

Another change has been that workshops now run for only half a day. Because most of the meetings are held in London we must allow as many people as possible to take advantage of British Rail's single day return fare scheme. Thus meetings now begin at 12:30 and continue until 5:00.

The participants themselves requested this change in the Participant's Comments that we collect after each meeting. Here we ask people to reflect on the level and content of presentations, the day's organisation and to give ideas about workshops they would like us to hold. Certainly any archive embarking on a similar series should be sure there is a way for participants to express their opinions. The Data Archive finds that these completed forms add to a waning collective imagination, something that was ineivable after ten years.

Not surprisingly the workshops are resource-intensive. However each only requires several concentrated spurts of activity. Except for recruiting speakers to introduce particular data sets, much of the work can be made routine.

Even getting speakers is not very difficult. The originators of the featured data often welcome the opportunity to meet people who will be analysing "their" data. While recognition of their contribution must be gratifying, we suspect that data originators feel relieved that contact with many naive users can be concentrated in one occasion.

The two biggest weaknesses of the workshops are their location and timing. Almost all occur in London. The London venue is almost mandatory because London is an "average" location. Like many averages, it misrepresents the extremes. In the British case, outliers are anyone living north of Newcastle or west of Liverpool. While it is possible to hold meetings away from London, it can be difficult getting London-located data originators to take the time necessary to travel to remote locations.

Timing is also a problem. The workshops offer the kind of information that is not readily-available elsewhere. However its usefulness depends partially on the analyst being at a stage in a project in which the material is pertinent. This is not likely to happen very often.

To overcome both these problems the Archive established two other initiatives: a computerised teleconferencing system and the data-oriented use group. Each will be described in turn.

TABLE 2

The Active Workshop Series

YEAR	TOPIC	ATTENDANCE
1982-83	Labour Force Survey	50
	1851 Census of Great Britain	15
	1981 Census for Sociologists	15
	Cohort Study of the Unemployed	40
	JUVOS Unemployment Records	38
1983-84	CSO Macro-Economic Data Bank	24
	Women & Employment Survey	42
	" "	23
	Workplace Industrial Relations Survey	15
	JUVOS Unemployment Records	53
1984-85	Census "Public Use Files"	30
	British Crime Survey	36
	British Social Attitudes Survey	37
	British Election Studies	24
	JUVOS Unemployment Records	45
1985-86	On-Line Access to the Archive	34
	National Child Development Study	20
	Agricultural Census	23
	General Household Survey	18
1986-87	British Population Census	
	JUVOS Unemployment Records	
	Administrative Statistics	
	CSO Macro-Economic Data Bank	
	Family Expenditure Survey	

Computer Teleconference: The Archive Bulletin Board

Regardless of the type of data supplied, archives try to offer analysts ancillary support. The Data Archive, for instance, publishes a descriptive catalogue, a regular newsletter and, where necessary, specialised documentation about particular data sources. Archives also offer on-line telephone support, although as archival holdings grow, archives risk embarrassment by substantive ignorance. And, of course, for large sets of data, it sponsors the workshops described above.

Whatever their merits, these services inevitably suffer because of shortcomings in the media used. The newsletter, for example, is composed some weeks before distribution. Mail or telephone consultation minimises the delay between user need and archive response but here information which is potentially of general interest is broadcast to a narrowly defined audience — typically consisting only of the person who raised the question.

Bulletin Boards in General

Computer teleconferencing facilities can overcome these constraints. Although these facilities are familiar to teenagers, they are less so to older social scientists. A brief overview of their potential is warranted.

"Computer conferencing", a new venture in the social sciences, is attractive because it offers topic specialists an efficient, inexpensive communications facility. The December 1985 issue of *BYTE* (vol. X, 13) featured computer conferencing. Although dated, it remains a worthwhile reference for anyone interested in looking further into its use. The articles by Jacob Palme ("Conferencing Standards" and "Database Structure in PortaCom") are of particular interest in the context of the Archive's Bulletin Board as the Archive and the University of Essex have adopted Palme's COM for its conference system.

Teleconferences are a computerised version of the conference call¹⁵. The main difference is that interpersonal communication is via the computer keyboard, rather than by voice. Consequently, teleconferences also benefit from computerised storage systems which record messages and from the ability to transfer large messages efficiently with file transfers. Economy, gained through the use of packet switched stream networks is a less heralded virtue, perhaps because it is not always applicable. Nonetheless, even teleconferencing over the normal audio telephone system can still be cheaper than voice to voice contact because the message storage facility can benefit from time dependent telephone charge tariffs.

Economy and message storage aside, the point to stress about teleconference's contribution to the development of the networks described above is that network members can "interact" in pseudo-real time. That is a network member can read a message lodged hours before and, if he or she has a contribution, respond. The response, as well as the original message, can be broadcast to as many members as the sender nominates. They in turn can react. Thus, although it is not normally viewed this way, an active teleconference can have many of the message linking features admired in

¹⁵Meeks, B. (1985) "An Overview of Conferencing Systems," in *BYTE* x,13:169-186.

hypertext system.

The Archive's System: Design

These characteristics, combined with the availability of a "free" inter-university/polytechnic computing network, convinced the Archive that a teleconference system could support a data-oriented researcher network. The Archive set up a social-science oriented "Bulletin Board" on the University of Essex Computer System. Anyone who can contact the Essex Computer via JANET¹⁶, PSS or a telephone modem can access the Bulletin Board. Once on the Essex Computer System, the teleconference user call the Bulletin Board directly. There is no need to use any other Essex computing facility. The Bulletin Board's facilities are free to registered users.

Formal registration itself is only required to make it easier to collect information about the user community. Initially people had to complete a two-page questionnaire as their admission price. However this went against the spirit of an easy interchange of information and so the Archive dropped the requirement. Now, a user can have free reign over the Bulletin Board by simply sending an electronic mail message asking for an identifier.

The Bulletin Board is organised as a suite of topical "conferences". These include:

- The General Household Survey
- The Family Expenditure Survey
- The Labour Force Survey
- The Population Census
- The Agricultural Census
- Election Studies
- Central Statistical Office Time Series Data Bank
- British Social Attitude Surveys

Any member of the Bulletin Board can join any (or all) of the conferences and thereby access their contents. There are two access forms: (a) passive access allows the member to read what others have written; (b) active access permits the user to lodge a general comment or question as well as send a private letter to another member (or set of members).

These topical conferences are a starting point. Others may be added while some may be combined. Since the Board began two years ago, the Archive has been its coordinator, thereby filling an editorial function. In time the Archive will produce a printed copy of each topic's contents which it will distribute to the conference's registered members.

the Archive's System: In Practice

It will come as no surprise to readers of this paper that the author is a teleconferencing enthusiast. After two years' experience, however, he feels that he may be alone among his British social scientists. On most counts, the Bulletin Board has not been a massive success.

¹⁶Joint Academic NETwork

To the idea's credit, it has attracted a disciplinary heterogeneous set of registered users. Thus it meets the first criterion for the data centred networks extolled earlier. However there have not been very many overall. At the moment, only 89 people have registered for the Bulletin Board — two of these live outside the UK and so cannot access it interactively.

Within the Board, most people join several, if not all, Conferences. This leads to the suspicion that people who joined are more interested in the computing aspect than they are in sharing data-specific knowledge. The logon pattern reinforces this view. People seem to sign on three times, with a long gap between the second and the third signons. Because few contribute information actively, it appears that people get bored at the static state of the messages. There is nothing to compare with the excitement evident from accounts of the pure computer-oriented teleconferencing systems. Several reasons for this suggest themselves.

Perhaps the most obvious possibility is that a newly found impulse on pin 22 of an 80286 chip is intrinsically more interesting than the ramifications of different definitions of income in the Labour Force Survey. However even if that is so, social scientists are stuck with their subject matter and so have to look elsewhere for the disappointing performance of the Bulletin Board.

The main reason why there are so few active users is that there are so few active users. Like any interactive seminar, a Bulletin Board requires a vibrant critical mass to keep it alive. Without this, the passive entertainment aspect simply kills it.

In the British social science community, the networked computer is not common enough to generate the required mass. The Archive's model for Bulletin Board implied (and expected) that quantitative analysts would connect to the system regularly, perhaps as part of their normal compute-bound routine. It will still be several years before the social scientist's working pattern incorporates daily access to a desktop, networked computing station.

In the interim, the Archive will continue to maintain the teleconferencing system as a background task. Other than a small license fee, the system does not consume many resources. However, if more resources become available the Archive will run an academic conference on teaching quantitative techniques. Although not the Bulletin Board as originally intended, such a conference may be enough to get people interested in the medium.

Data Centred User Groups: The GHS User Group

The data centred user group is perhaps the most ambitious, but certainly the most labour intensive, Archive project to foster a specialist network. While several of these groups have been planned, only one has so far been realised. However, the General Household Survey User Group has developed to such an extent that it is only possible to sketch its programme in this paper.

It should not be surprising that a study like the GHS can encourage the level of activity that it does. Conducted annually since 1971 by the Social Survey Division of the Office of Population Censuses and Surveys, it must count as the single richest source of social indicators in Great Britain. Every year the individuals in over 11,000 households are questioned about aspects of housing, education, employment, health and social services, transport, family life, leisure and social security. Information can be extracted by individual, household and/or by attribute. Multiple-defined logical views are

possible, as are trend analyses on a vast range of social phenomena. Although the Survey steers clear of conventional attitudinal measures, it offers coverage of behavioural matters which are unequalled in any other data source held by the Archive.

The General Household Survey data analyst faces all of the problems described earlier in the paper. Indeed, the GHS is the archetypical case in the context of that list. Even so, it is one of the Archive's most popular datasets. The register of current GHS users maintained by the User Group lists over 75 active analysts.

The GHS user Group was established in 1986 to provide these users with a regular source of support, as well as a forum for the interchange of experiences with the datasets. The Group has a schedule of regular activities. These include a bi-annual meeting which focuses on a theme related to the analysis of the GHS data¹⁷ and the maintenance of a research register of people interested in exploiting different aspects of the Survey. Equally important, it provides a convenient interface between the team in charge of the Survey and the community of users.

Although it is a mark of the level of interest in the Survey that many of these activities are undertaken by people outside the Archive, the Archive still has a central support role. Indeed its GHS specialist provides the Group with its executive function, to say nothing of serving as the *Newsletter's*¹⁸ editor.

As mentioned, the GHS User Group was initially established to test the viability of data specific user groups. It has been the Archive's intention to get similar associations started with several of its other larger holdings, but these have been slow to take root. Partially, the problem is one of limited resources. Ideally, each Group requires about 20% of an experienced staff member's efforts. This level of support has not been available so far. Perhaps, though, if the computing problems that took a significant share of archival resources are diminishing, as suggested in the beginning of the paper, that staff will be freed to embark on this new style of data provision.

Summary

The paper argued that archives could no longer survive simply as hewers of wood and drawers of data. Through an analysis of the British Data Archive's user community it showed that a significant share of that Archive's market would benefit from a specialised set of knowledge-sharing networks. Three ongoing projects were described which varied in resource utilisation and return.□

¹⁷For example, the next meeting of the group will focus on the topic "Using SIR in the Analysis of GHS."

¹⁸ *General Household Survey Newsletter*

Appendix A

Research Projects Using a Single Data Source: A Selective List

1. A Cross-Section Study of the Distribution of Earnings in the UK.
2. Sex Differences in Sickness Absence from Work – GHS 1975 and 1976.
3. Alternative Approaches to Classfying Women by Social Class.
4. Taxation, Incentives and the Distribution of Income.
5. The Economic Value of Life Saving: An Estimate from the British Labour Market.
6. Problems in Human Capital Analysis: The Case of Great Britain.
7. The Education, Occupations and Earnings of Men and Women.
8. An Anlysis of Variation in Job Satisfaction.
9. Determinants of Housing Tenure Choice in UK.
10. Patterns of Family Formation and Dissolution in Contemporary Britain.
11. Social and Economic Factors in Fertility Differences.
12. Circumstances of Families with Pre-School or Primary School Children.
13. The International Comparative Programme on Life Cycle Methodology to Integrate Social Indicators.
14. Economics of Discrimination.
15. An Anlysis of the Relationship Between Socio-Economic Factors, Self-Reported Morbidity and the Use of Health Services.
16. The Growth and Distribution of Fringe Benefits in British Industry.
17. An Analysis of Occupational Earnings.
18. Evaluation of the SIR Data Management Package.
19. Work, Household and Marriage in the Earlier Stages of the Life Cycle: 1850–Present.
20. Economic Analysis of Female Labour Force Participation Rates.

Appendix B

A Typical Workshop
Agenda

CJG/12th June 1987

FAMILY EXPENDITURE SURVEY SEMINAR

Room C119, London School of Economics, Houghton Street, London WC2A 2AE

Thursday, 25th June 1987

AGENDA

- 12:30–1.00 Registration and Coffe
- 1:00–2:00 FES: An Originator's Overview
M. Janes (DE)
- 2:00–2:45 FES: Secondary Analysts' Encounters
H. Sutherland (London School of Economics)
P. Truscott University of Surrey)
- 2:45–3:15 Accessing the Data: SIR and Not-SIR
A. Heath (SIR Inc)
- 3:15–4:00 FES: Data Collection
B. Redpath (OPCS)
- 4:00–4:30 Open Forum

CJG/12.6.87.

Social Science Data and the Usage of Data in Hungary

by Prof. Tamás Kolosi¹
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The collection of data for social sciences has a rich tradition in Hungary. Hungarian sociology – apart from short periods after the turn of the century and after the Second World War, has undergone rapid changes of late (most notably from the sixties on). Hungarian social statistics undertook extensive and very profound data collection operations as early as the period between the two world wars. A striking example of this state of affairs, is that it was in Hungary, for the first time anywhere, that inter-generation mobility data were collected on a nationwide representative sample (1930).

There has been a very close connection between social statistics and sociological research. The mobility surveys repeated at ten-year intervals (1964, 1974, 1984), the income assessments conducted every five years, and data from the time balance surveys in 1964 and 1977 frequently become data sources for not only Hungarian, but also for international comparative sociological research. A particularly rich collection of data is available to us as regards social stratification and inequality. The stratification survey work performed by KSH (Central Statistical Office) in 1963 for the middle-eastern-European region was the first one to provide an empirical base, on a large nationwide sample, for criticising the ideologically enforced Stalinian class model.

¹Presented at the IFDO/IASSIST 89 Conference held in Jerusalem, Israel, May 15–18, 1989

The largest-scale empirical data collection undertaken thus far was in 1982-83. Through the combined effort of several research institutes, this data collection went on for one and a half years, during which nine different questionnaires were completed on the same sample and in which the data (2000 variables or so) almost comprised the entire matrix of measurable social inequalities.

Currently, there are three large-scale data collection systems in Hungary. The Unified Population Data Collection System of KSH which dates back almost twenty years. Beyond regular household and manpower surveys, this system comprises collection of such large-scale social statistical data on mobility, time use and prestige of professions. However, these large sample (about 50,000 persons) data collections are in part very expensive and, on the other hand, due to their statistical character, are not fully suitable for the purposes of sociological research inquiring into, or wishing to inquire into finer social structures.

These considerations motivated us to establish the so called Joint Survey System of TARKI (Social Science Information Centre) from 1982. This is a nationally representative sample involving 6000 persons in which there are omnibus-type survey periods twice a year. The omnibus character means that the different research units may either turn in their questions or their questionnaire blocks, or they may even occupy an entire questionnaire. The data collections are then coded after arranging the questions from different research aspects into a unified questionnaire. The researcher then gets back a labelled SPSS system-file within six months. The sample is replaced after five data surveys and the questions are then collated with the data which originated from within a two and a half year period. Proceeding like this makes data collection not only substantially cheaper (it is sufficient to call for standard information only once) but provides an immensely greater scope of possibilities for analysis. In the framework of the system, data were collected for a number of widely different purposes, from the inequality system to the economy of households, to the study of law-consciousness and to the research of cultural stratification. Inquiries are made every year on the basis of this system in connection with the questionnaire block of the Social Survey Program which now extends to nine countries.

The third system is operated by the Hungarian Public Opinion Research Institute and is beyond just political public opinion research, this institute is also concerned with investigations relating to the acceptance of media communication, which is primarily a regular monitoring of TV watching and radio listening.

In addition to these large-scale research activities, there have been many smaller, special purpose sociological data surveys over the recent thirty years. But for a long time, the usage and utilization of data was essentially limited to analysis and publication by principal investigators. As a result of this, the paradoxical situation has arisen in Hungary that apart from some analyses which aroused international interest as well, today we possess much richer data sources than what are indicated by the combined achievement of Hungarian sociology. With a bit of malice one may say that it was not the original character of analyses and the scientific level that, primarily made somebody a well known researcher, but the personal ability and cleverness to acquire the financial means required for collecting the data.

With a view to altering this situation, in 1985 we started to organise a Hungarian social science data bank in the framework of TARKI which is a joint venture of the five major research units in the country. (Currently there are fourteen proprietor-institutes, and almost all the Hungarian social

science research bodies are associated with us as users). Our data bank was developed from drawing on the experiences of the data banks in Cologne, Colchester and Amsterdam. Furthermore we established the connections by becoming members in International Federation of Data Organizations (IFDO) and CESSDA. We have data from 250 research surveys available in our archives, in addition to the raw data, we provide access to the files as an SPSS system file. Although a majority of the data from earlier research is not available in an archivable format, we do possess a partially completed materials originating from work from the end of the seventies. In addition to the sociological data collections, the social statistical data surveys by KSH (including data from the latest two population censuses) are also available in our data bank.

The data bank is entirely public and access to data conform to international standards. The SPSS-format data tapes or original data are made available to university students free of charge and to professional researchers for a small fee. Users may also arrange to conduct their analyses on our computer facilities if they have no access to computers.

As a new service, we undertake to carry out secondary analyses of the available data for customers inexperienced in sociology such as the press and government agencies. We will also provide customers with material in tabulated or graphic form or in the form of short analyses.

The development of factographic data bases has also been ongoing during the past two years. At present two such data bases are widely available.

The data base called TARKA is usable on a IBM-compatible PC if the user has an SPSS PC program. Essentially, it is a handling system whereby the SPSS system files of different subjects stored on HD floppies are integrated into a unified data base.

The TARKADAT data base is another venture by us but on a grander scale. In this system, the data base is accessible on-line through a science based, packet-switched Hungarian data network (currently about 70 institutions share the system, — research institutes, universities and libraries and some industrial companies engaged in major development jobs as well) and it contains all the information from all the data surveys performed within the TARKI Joint Data Survey System (this today amounts to almost 8000 information with a combined extent of 8 megabytes).

The system is composed of two parts and its use requires no special information or technical knowledge whatsoever. The first part makes it possible for the user to select the required information from a tree-structure thesaurus in an interactive way and to determine the necessary sample. Data processing is performed in the second part. There are two possibilities here: simpler statistical operations (such as frequencies, descriptive statistics, crosstabulation, correlation, grouping means and standard deviations) can be performed also on-line. (Since the data are labelled at both variable and value levels, this kind of processing leads to output of final tables). There is, however, a possibility for the user to have the output from the first step printed into his own file (either as a raw data file, SPSS system or export file) or to arrange to have the data written to magnetic tape or floppy disks. In this latter case, the data is available for further processing in an unrestricted way. (The system has an automatic billing for data use charges). Access to the Hungarian packet-switched data network, via internet, has been scheduled to be made available by mid-summer of 1989. This will allow the international social research community relatively easy access to our TARKADAT data base.

This is important not only for the expansion of international relationships but also because the use of data banks and data bases in Hungary is spreading rather slowly. This is strikingly illustrated by the fact that in 1988 TARKI had a higher file trade abroad than in Hungary.

International experiences indicate that in the first years subsequent to organising data banks the initial number of users is rather small. Then there is a period of moderate usage. Studies indicate that about 10–15 years are necessary for the system to reach full operational status. The twenty-three data files circulated by us in 1988 corresponds to the expected useage statistics of a young data bank. Nonetheless we are eager to expand our services and useage. Attempts are therefore made to develop as user-friendly systems as possible. To this end, intensive training activity is also carried on.

There are very rich data sources currently available in Hungary. In our view, access to these data is quite easy both technically and legally. The lack of expertise by users, the low level of computational and secondary analytical cultures and the shortage of financial funds available to potential users, which is due to economic crisis, all combine to result in a still relatively poor utilization of our data holdings and the research possibilities available therein.□

Report on the meetings of the American Library Association: Mid Winter and the Annual Conference

by Libbie Stephenson¹
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Committee on Cataloging and Classification: Description and Access

For the past several years, IASSIST has followed the work of the American Library Association with regard to computer files. The most intensive work has been carried out for the cataloging of computer files. IASSIST has a liaison to the ALA committee on Cataloging and Classification: Description and Access (CC:DA). This group is concerned with cataloging of library materials in all types of libraries. Members review and revise the current cataloging code, develop official ALA positions on catalog rules, policies and standards, and alert the information community about their actions. While the committee addresses issues relating to all types of information, computer files and the associated cataloging concerns are regular topics.

At the CC:DA meetings held during the midwinter conference, January 1989, there was discussion of the newly released 1988 revision of the Anglo American Cataloging Rules (AACR2). Copies of the

¹reported as IASSIST Liaison to the American Library Association Committee on Cataloging and Classification: Description & Access (CC:DA)

revised rules can be ordered from the ALA offices in a hardbound, paperbound, or looseleaf format.

The following items were discussed at the meetings with regard to computer files. The CC:DA document number is noted where available.

Rules for producers of nonbook materials (3JSC/Chair/9)

A task force has been created to consider the AACR2 rules concerning producers as covered in AACR2 chapters 7-10. Chapter nine is devoted to computer files. Some of the concerns focus on the definition of a producer, as applied to different storage formats, such as filmstrips, motion pictures, or computer files. There is a desire on the part of some to use the term 'producer' interchangeably regardless of the type of information produced. Others see a problem with this, since the producer of a computer file is not the same as the producer of a motion picture. The work of this task force was discussed at the annual conference, in June 1989, and is proceeding.

Generic special material designations (3JSC/Chair/10 and 3JSC/Aus/1)

There was discussion here about the inclusion in the catalog record, of technical specifications on how to use such formats as filmstrips, videorecordings, or computer file tapes or disks. In general the group felt that where detailed technical information was needed, regardless of format, it should most likely be placed in a note field. This would be the best, since usage information is not standardized, and can vary from library to library, depending on equipment and environment. Also, the same material could be produced in more than one format and would require additional details on usage depending on the format(s) the library holds.

Chapter nine and optical disks (3JSC/Chair/18)

The group had concerns about cataloging rules as they may be applied to new technologies such as optical disks or laser disks. Some feel that there have not been enough chances to catalog optical disks so that formulating rules for them is not yet possible. While there are examples of cataloging computer files on optical disks in AACR2 chapter nine, some felt that these should be expanded to other chapters.

For those who catalog for libraries with collections stored in a variety of formats, using specific rules for each format is appealing. For those who have collections of just one type of information, such as computer files, using a different set of rules for every format seems unnecessary, since the type of information remains the same, while the storage medium is the only thing that changes. Some feel that since technological development will continue to present new options at a rapid pace, it will not be possible to create new rules for every new storage medium.

This discussion continued at the meetings held during the annual conference. Some emphasized that one should catalog materials based on the information, rather than the storage medium. This opinion was reinforced by those who catalog computer files. That is, while many types of information may be stored on optical disk, when the information is a computer file, the cataloger should use chapter nine. The definition of a computer file, as defined by chapter nine is "files that are encoded for manipulation by computer. These files comprise data and programs." Discussion continues on how non-computer files should be cataloged, with some wishing to use chapter nine, and others looking for another solution. For the moment, the group has opted to apply the rules as they are to the newer storage formats, making decisions that reflect the nature of the information, rather than storage format.

Computer Files Discussion Group Formed

In addition to the established committee meetings at ALA, archivists can also participate in a newly formed discussion group addressing technical processing and computer files. The topics for discussion focus largely on cataloging and subject access issues. While much of the discussion in ALA committee meetings is very theoretical, and is conducted in a fairly formal setting, the discussion group provides for a lively exchange of ideas, a way to solve cataloging questions, and, it provides a great way for librarians and data archivists to understand each other's perspective on computer files.

The computer files discussion group met for the third time at the American Library Association midwinter conference. The discussion leaders were Ann Fox, Sue Dodd, and David Gleim. Ann Fox spoke about Cataloging in Publication (CIP) for computer file software. Sue Dodd discussed the relationship between the Data Archive at the University of North Carolina, Chapel Hill and the university library, to catalog a set of Harris Poll files.

Sue Dodd also led a discussion about remote access computer files. It is often much more difficult to catalog files which are not physically stored in the library. Dodd pointed out the relationship between the transfer medium, the physical carrier, and the information itself. Discussion continued on the cataloging issues arising from the logical and physical changes computer files can undergo.

The computer files discussion group agreed to meet at the annual conference at ALA in Dallas, June 1989. Topics for discussion focused on three areas: Subject access, Relations between computer centers, libraries and archives, and, using AACR2 and the MARC format for computer files. Each of the discussions was held separately. Discussion leaders for subject access were Barbara Aldrich at the Bureau of the Census; Carolyn Geda of ICPSR, and Terry Hulbert from Carnegie Mellon University.

On the topic of relations between libraries, computer centers and archives, Dan Tsang from University of California, Irvine spoke about a survey of data file services; Lynn Marko from the University of Michigan described her experiences in during the RLG supported project to catalog ICPSR files; and, Sarah Cox-Byrne stimulated discussion with some thoughts on how computer centers and libraries can coordinate their efforts to provide access to data files.

One final forum for discussion was focused on descriptive cataloging issues with regard to computer files. Examples of problems were submitted to Bao-Chu Chang, North Carolina State University and these were reviewed in the discussion.

These discussions were held over a period of three days, after which some general themes emerged. Though most of the participants were catalogers, some were practising archivists. There is a need for data archivists and librarians to appreciate the environment from which each approaches access to data files. The philosophy and theory by which catalogers achieve their goals can be augmented with the technical expertise and subject knowledge which archivists possess about computer files. There is clearly a need for more communication and exchange of ideas.

It was also clear from the discussions that one of the most important features about a library catalog is that it can provide an additional level of information about computer files that is not possible in

most data archives. As Lynn Marko discussed, even if the computer files do not reside in, or are not serviced by a library, the library and its catalog can act as a service agent with respect to computer files. That is, the library can provide a service by enhancing the awareness of and access to computer files through the catalog, whether or not they maintain a collection of computer files. At the same time, the archive provides services through knowledge of the collection of computer files, and technical expertise in file use and maintenance.

Another theme that was expressed more than once focused on the need for standardization, not only in the interpretation of catalog rules, but also in how computer files are assigned bibliographic details by producers. There was agreement that at least in the United States, reference should be made to national on-line catalogs, such as RLIN, WLN, and OCLC. Further, there should be work at all levels – local, state, national, and international – to come to an agreement on how to identify specific computer files. Standard for title and principal investigator should be established and the data producing agencies should be encouraged to employ them to a greater extent than is now practised.

The next meetings of the computer files discussion group will be held at the midwinter ALA meetings in Chicago. For further information, contact Patricia Vanderberg, 212 Library, University of California, Berkeley, California, 94720.□

Future Directions for IASSIST: Action Group on a Five Year Plan

Introduction

IASSIST has helped bridge the interests and concerns of three distinct communities: social researchers and scientists, who – whether working in the public or private sector – are producers and consumers of micro and macro-level social data; information specialists, who preserve social data, manage facilities and provide services that promote the secondary use of social data; and computing specialists, who advance technical methods in manipulating and analyzing social data. After serving for a decade and a half as a forum for direct communication among these three communities, IASSIST is now challenged to look toward the future and to consider its directions for the 1990's as social data encompasses more than statistically oriented machine-readable datasets.

During its formative years, a primary focus of IASSIST was to advance an infrastructure that would support the data requirements of secondary research in the social sciences. The development of such an infrastructure over the past fifteen years has witnessed the growth of social data information centers in a variety of institutions, including national archives, university libraries, computing centers, research institutes, governmental agencies, and private corporations. These centers have endeavored to meet the demands for both information services and technical applications. Toward this end, IASSIST will remain supportive of the development of new and existing social data information centers, and will continue to be a forum for the exchange of ideas and techniques in managing these centers.

IASSIST's membership is composed of individuals, many of whom are professionals in social data information centers. With its individual level membership and global focus, IASSIST offers an organization concerned with the professional activities of its members, and offers an opportunity to extend beyond national boundaries the issues and developments of social science information service and technology. IASSIST is clearly in the position to advance the interests of these data professionals, to promote professional development of this new career, and to take an active role in the promotion of global exchange of information, experience, and standards.

In planning for the future, IASSIST needs to state clearly its identity and distinguish itself from other organizations or divisions within other organizations concerned with social and other data. While IASSIST is a premier organization in the field of social data services, others have emerged over the past fifteen years to represent interests in data services. International examples include: the International Federation of

Data Organizations (IFDO), the International Conference on Data Bases in the Humanities and the Social Sciences (ICDBHSS), the International Federation of Library Associations (IFLA), the International Council on Archives (ICA), etc. Within each country, as well, information science organizations are emerging. In articulating its identity, a formal statement should be prepared that expresses the vision of how IASSIST members view their organization and its purpose.

Social research consists of a wide range of interdisciplinary subjects. Some IASSIST members are responsible for managing centers that support research across many social disciplines as well as research in other fields. IASSIST will continue to focus on social science information services and technology and will recognize the wide range of interests of its members. However, the expertise of its members in data management and the operation of information centers should be promoted among professionals working in disciplines and information centers outside the realm of social research.

In the past, Committees and Action Groups have been used to address major concerns within IASSIST. Various Committees and Action Groups have produced guidelines, agendas, and formal liaisons with relevant groups. This form of organization has been productive and should be maintained. However, IASSIST should develop a comprehensive outline of goals and describe realistic objectives before assigning issues to Committees and Action Groups. The following list of goals and concerns is an initial attempt to outline those issues that Committees and Action Groups should undertake. Some of the issues can be approached with clearly stated objectives and activities. Other areas will require policy development or organizational linkages that may not be as easily defined or executed. The next planning task is to establish procedures for action. This document presents these areas in the following order:

1. Professional development of STAFF in social data information centers;
2. Advancement and development of social data information CENTERS;
3. Assessment of and planning for the impact of new TECHNOLOGY;
4. Promotion of the ARCHIVING of social data and the advancement of data STANDARDS;
5. Promotion of global LINKAGES between social data centers;
6. Development of LINKAGES between social data centers and users and producers of data including the academic, public, and private sectors;
7. Evaluation of the role and contribution of IASSIST and the recruitment of new members.

Outline of Goals

1. Professional development of STAFF in social data information centers: Providing guidelines for professional development and opportunities for learning.
 - a. IASSIST will outline a recommended curriculum for training staff of social data information centers located in national archives, academic libraries, computing centers, research institutes,

governmental agencies, or private corporations.¹

- b. IASSIST will coordinate the creation and delivery of short courses and workshops as part of a recommended curriculum.²
2. Advancement and development of social data information CENTERS: Creating awareness and assistance for solving technical, political, logistic, economic and professional problems in establishing and maintaining social data centers.
 - a. IASSIST will develop guidelines for creating social data information centers. These guidelines will cover the functions and services of such a center and the duties of the staff of such a facility.³
 - b. IASSIST will sponsor presentations and workshops on the applications of technology for managing existing social data centers. (E.g. tape management systems, indexing systems, or automated guides)
 3. Assessment and planning for the impact of new TECHNOLOGY
 - a. IASSIST will sponsor presentations and workshops on the impact of changing technology on existing social data information centers, including database management systems, mass storage technology, scholarly workstations, and the use of networks for communication and for access to data collections.
 4. Promotion of the ARCHIVING of social data and the advancement of data STANDARDS, e.g. International Interchange Data Standards;
 - a. IASSIST will work with other social data organizations toward the development of guidelines and standards for the preservation of social data.
 - b. IASSIST will remain active in developing bibliographic standards for data files, and will promote the cataloging of social data in the international bibliographic utilities used by research libraries.
 - c. IASSIST will promote the archiving of social data within the social science community by developing guidelines for depositing data in social data centers, by increasing the interchange between researchers and social data centers, and by encouraging funding agencies to stipulate the deposit of data in publicly accessible archives.

¹A survey of the IASSIST membership is recommended to obtain information about members' background and training experiences.

²The ICPSR has indicated an interest in working in conjunction with IASSIST to present a Data Library Workshop at its Annual Summer Program. IASSIST should explore this further and develop a proposal.

³Information such as archive policies, procedures, and descriptions have been collected by participants in the IASSIST Conference Workshop on Establishing Data Archives. A collection of these documents could be a starting point for meeting this goal.

5. Promotion of global LINKAGES between social data information centers, including developing centralized data collections, policies for data sharing and cooperative acquisitions, and technological linkages for data and information exchange.
 - a. IASSIST will investigate the plausibility of institutional arrangements among social data information centers for sharing the acquisition of and access to social data. IASSIST will offer a forum for social data center staff to discuss the development of centralized data collections to reduce the necessary duplication of materials among member organizations.
 - b. IASSIST will advance global technological methods of communicating through national and international telecommunication networks.
 - c. IASSIST will publish an international directory of social data centers.
 - d. IASSIST will promote the development of an international union list of social data held in social data centers.
6. Develop LINKAGES between social data centers and users and producers of data including the academic, public, and private sectors.
 - a. IASSIST will evaluate its role in communicating and developing linkages with governmental data collection and dissemination agencies, and will define its role in the development of national and international statistical policy regarding data gathering, storage, preservation and access.
 - b. IASSIST will evaluate its role of mediating between the data user community with interests in data access, and public data protection agencies with interests in data privacy.
 - c. IASSIST will monitor the changes in social science research and their effects upon data gathering, analysis, archiving, access, and technological requirements.
 - d. IASSIST will sponsor presentations and workshops regarding the instructional applications of social data, and support the development of materials to be used in discipline-related instruction to promote the use of social data by students and researchers in the social sciences.
 - e. IASSIST will address the questions of closer integration of the local social science information center into existing local information services, particularly those provided by the traditional library.
7. Evaluate the role and contribution of IASSIST and recruit new members.
 - a. IASSIST will state its role in relation to other data organizations and prepare a formal vision statement that articulates its identity.
 - b. IASSIST will undertake a comprehensive membership drive recruiting from all known data information centers.

- c. IASSIST will evaluate its relationship with and expand its outreach to Third World countries.
- d. IASSIST will evaluate the effects of action taken under the plan and develop future strategies.

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November 1988

NEWS RELEASE

CENTER FOR MACHINE-READABLE TEXTS IN THE HUMANITIES

Rutgers and Princeton Universities have received grants from the National Endowment for the Humanities (Program for Research Tools, \$30,000), the Andrew W. Mellon Foundation (\$50,000), and the New Jersey Committee for the Humanities (\$10,000) to undertake jointly the planning for a Center for Machine-Readable Texts in the Humanities. Project staff include Marianne Gaunt (Director), J. Penny Small, Kathleen Ciociola (Rutgers); Robert Hollander, Judith Rowe (Princeton); Leslie Hume (Research Libraries Group). Members of the Advisory Board for the planning process are Nancy Ide, Vassar College; Robert Kraft, University of Pennsylvania; Michael Sperberg-McQueen, University of Illinois-Chicago; Donald Walker, Bellcore.

During the course of the planning period project staff will be investigating issues related to the establishment of a cooperative center which will act as a central source of information on humanities datafiles and a selective source of datafiles themselves. The initial goals of the Center as outlined in the project proposal are: the continuation of an on-going inventory of machine-readable texts; the cataloging and dissemination of inventory information to the broader scholarly community; the acquisition, preservation and servicing of textual datafiles which would otherwise become generally unavailable; the distribution of such datafiles in an appropriate manner; and the establishment of a resource center/referral point for information concerning other textual data. Organizational issues, technical issues, intellectual ownership, access and dissemination, and physical facilities are broad areas of investigation during the planning process.

The Center does not propose to duplicate the archives and repositories that already exist for the collection and dissemination of textual data, but rather to complement existing collections and to bring bibliographic control to existing datafiles. To that end project staff will be networking with existing projects/centers to establish appropriate means of collecting inventory data for the cataloging of archival holdings. Progress reports will be sent to publications of scholarly associations and announced on HUMANIST. A listserver has also been set up for communication among those interested in the project and invites inquiry and advice.

Bitnet communications may be sent to:

Gaunt@Zodiac.Rutgers.edu or to BobH@Phoenix.Princeton.edu.

Mail addresses are:

Marianne Gaunt, Alexander Library, Rutgers University, College Ave., New Brunswick, N.J. 08903;

Prof. Robert Hollander, Dept. of Comparative Literature, Princeton

University, Princeton, N.J. 08544.

11/11/89



The International Association for Social Science Information Services and Technology (IASSIST) is an international association of individuals who are engaged in the acquisition, processing, maintenance, and distribution of machine readable text and /or numeric social science data. The membership includes information system specialists, data base librarians or administrators, archivists, researchers, programmers, and managers. Their range of interests encompasses hard copy as well as machine readable data.

Paid-up members enjoy voting rights and receive the **IASSIST QUARTERLY**. They also benefit

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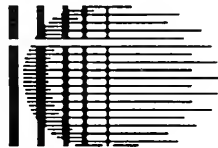
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IASSIST 1990

CALL FOR PAPERS



IASSIST
16th Annual Conference
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Numbers, Pictures, Words and Sounds: Priorities for the 1990's

The 1990 IASSIST conference has as its central theme "Numbers, Pictures, Words and Sounds: Priorities for the 1990's". This title reflects the ever-expanding universe of data types, as well as related hardware and software development. The program will consist of presentations on a wide variety of topics. The Program Committee is now soliciting contributions in the forms of papers, proposals for panel discussions, roundtables, poster sessions and workshops to be presented at the conference.

All papers or proposals concerned with the generation, transfer, retrieval, storage and use of machine-readable social science data will be considered. Papers which discuss issues and technologies related to non-numeric data are particularly encouraged.

For more information contact:

Sarah E. Cox-Byrne
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Vassar College Library
Box 20 Vassar College
Poughkeepsie, NY 12601 USA
e-mail: COXBYRNE@VASSAR.BITNET

Laura A. Guy
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3308 Social Science Building
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The International Association for Social Science Information Service and Technology (IASSIST) is an international association of individuals who are engaged in the acquisition, processing, maintenance, and distribution of machine readable text and/or numeric social science data.

Founded in 1974, the membership includes social scientists, data archivists, librarians, information specialists, researchers, programmers, planners and government agency administrators.

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